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EXAMINER	
HANNETT, JAMES M	

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/545,577	PELZ, JEFF B.	
	Examiner	**Art Unit**	
	James M. Hannett	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17,19-33 and 35-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *17,19-24,33 and 35-39* is/are allowed.

6)☒ Claim(s) *1-16,25-32 and 44-46* is/are rejected.

7)☒ Claim(s) *40-43,47 and 48* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 April 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-16,25-32 and 44-46 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1: Claims 1-3, 6, 8-12, 15, 16, 25-27, 29-31, 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,686,961 Kudo et al in view of USPN 5,057,913 Nagata et al.

2: As for Claim 1, Kudo teaches providing a digital image (Figure 3, Element 6), the digital image comprising a plurality of channels (Figure 7 shows R, G and B separated for further processing) with each of the channels comprising a set of pixel data signals, and applying a filter to each of the sets of pixel data signals (34 and 31), and applying a different filter to each of the sets of pixel data signals (column 7, Lines 57+). As shown in Figure 7, Kudo et al' 961 teaches applying a median filter (34) for the set of green pixels, an average-interpolation filter (31) for the set of red pixels, and an average-interpolation filter (31) for the set of blue pixels. These are interpreted as different filters to each of the sets of pixel data signals. Furthermore, as depicted in Figure 11 and discussed on Columns 7, Lines 36-56, Column 8, Lines 6-28 and Column 9, Lines 4-16, after the pixels are interpolated by interpolator filter (47), the data is filtered by a bandwidth correction circuit (23) and a color balance circuit (8). Furthermore, the examiner has

viewed the claim broadly so that the claimed filtering includes the color balance filtering (8). Furthermore, as discussed on Column 9, Lines 4-16 the color balance circuit adjusts the three colors differently in order to obtain an optimum color reproduction. This total filtering process by the camera of Kudo is viewed by the examiner as applying a filter to each of the sets of pixel data wherein each of the filters is adjusted and applied differently and independently to each of the sets of pixel data signals. However, Kudo does not teach the use of a filter that is selected and is different for the sets of pixel data based on at least exposure duration and one scene statistic for the digital image.

Nagata et al teaches on Column 5, Lines 36-55 and depicts in Figure 1 that it is advantageous when designing an electronic imaging system to provide a filter that can adjust the color density and exposure time independently for the different colors. Nagata et al teaches that this filtering method is advantageous because it eliminates the difference between the spectral sensitivity of the camera and a CRT monitor and therefore improves color accuracy of a displayed image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the camera of Kudo with a color density filter as taught by Nagata et al in order to eliminates the difference between the spectral sensitivity of the camera and a CRT monitor and therefore improves color accuracy of a displayed image.

3: In regards to Claim 2, Kudo et al teaches replacing the individual pixel within the set of pixel data with a median pixel data signal derived from a median value of adjacent pixel data signals within a set of radius around the individual pixel data signal (column 7, Lines 65-column

8, Line 23; also Figure 7 show the replaced pixel is output from the filters). This process is viewed as a median filtering process.

4: As for Claim 3, Kudo et al teaches that the set of radius is different from the different filters (element 34 uses the two midmost values such as directly above, below, on the right of, and on the left of the central pixel [Column 7, Lines 58-64] and element 31 uses all of the signal values [column 8, Lines 10-15].

5: In regards to Claim 6, Kudo et al teaches the plurality of channels comprises a red channel, a green channel, and a blue channel (see Figure 7, 47).

6: As for Claim 8, Kudo et al teaches identifying the pixel data signals in each set of pixel data signals with at least a first characteristic and restricting the application of the filters to the unidentified pixel data signals in each set of pixel data signals (referred to as masking; Figure 7, step #10).

7: In regards to Claim 9, Kudo et al teaches the first characteristic is noise at or above a first threshold level (column 7, Lines 48+ discloses reducing to 0 the signals other than G, R, and B pixels). This indicates any signals not meeting the G, R or B level will be reduced to zero and not applied to the filter.

8: As for Claim 10, Kudo teaches providing a digital image (Figure 3, Element 6), the digital image comprising a plurality of channels (Figure 7 shows R, G and B separated for further processing) with each of the channels comprising a set of pixel data signals, and applying a filter to each of the sets of pixel data signals (34 and 31), and applying a different filter to each of the sets of pixel data signals (column 7, Lines 57+). As shown in Figure 7, Kudo et al' 961 teaches applying a median filter (34) for the set of green pixels, an average-interpolation filter

(31) for the set of red pixels, and an average-interpolation filter (31) for the set of blue pixels. These are interpreted as different filters to each of the sets of pixel data signals. Furthermore, as depicted in Figure 11 and discussed on Columns 7, Lines 36-56, Column 8, Lines 6-28 and Column 9, Lines 4-16, after the pixels are interpolated by interpolator filter (47), the data is filtered by a bandwidth correction circuit (23) and a color balance circuit (8). Furthermore, the examiner has viewed the claim broadly so that the claimed filtering includes the color balance filtering (8). Furthermore, as discussed on Column 9, Lines 4-16 the color balance circuit adjusts the three colors differently in order to obtain an optimum color reproduction. This total filtering process by the camera of Kudo is viewed by the examiner as applying a filter to each of the sets of pixel data wherein each of the filters is adjusted and applied differently and independently to each of the sets of pixel data signals. However, Kudo et al does not teach transforming red, green, and blue channels to an achromatic and two chrominance channels.

Official notice is taken that it was notoriously well known in the art at the time the invention was made to change RGB primary color signals to R-G, B0G, and Y channels (also known as Cr,Cb,Y). In order to provide a camera with the ability to interface with devices (monitory) which have (Cr,Cb,Y) inputs. Therefore, increasing the functionality of the camera.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the camera of Kudo with circuitry which can convert primary colors (RGB) into a (Cr,Cb,Y) In order to provide a camera with the ability to interface with devices (monitory) which have (Cr,Cb,Y) inputs. Therefore, increasing the functionality of the camera. However, Kudo does not teach the use of a filter that is selected and is different for the sets of pixel data based on at least exposure duration and one scene statistic for the digital image.

Nagata et al teaches on Column 5, Lines 36-55 and depicts in Figure 1 that it is advantageous when designing an electronic imaging system to provide a filter that can adjust the color density and exposure time independently for the different colors. Nagata et al teaches that this filtering method is advantageous because it eliminates the difference between the spectral sensitivity of the camera and a CRT monitor and therefore improves color accuracy of a displayed image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the camera of Kudo with a color density filter as taught by Nagata et al in order to eliminates the difference between the spectral sensitivity of the camera and a CRT monitor and therefore improves color accuracy of a displayed image.

9: In regards to Claim 11 Kudo et al teaches replacing the individual pixel within the set of pixel data with a median pixel data signal derived from a median value of adjacent pixel data signals within a set of radius around the individual pixel data signal (column 7, Lines 65-column 8, Line 23; also Figure 7 show the replaced pixel is output from the filters). This process is viewed as a median filtering process.

10: As for Claim 12, Kudo et al teaches that the set of radius is different from the different filters (element 34 uses the two midmost values such as directly above, below, on the right of, and on the left of the central pixel [Column 7, Lines 58-64] and element 31 uses all of the signal values [column 8, Lines 10-15].

11: In regards to Claim 15, Kudo et al teaches identifying the pixel data signals in each set of pixel data signals with at least a first characteristic and restricting the application of the filters to

the unidentified pixel data signals in each set of pixel data signals (referred to as masking; Figure 7, step #10).

12: As for Claim 16, Kudo et al teaches the first characteristic is noise at or above a first threshold level (column7, Lines 48+ discloses reducing to 0 the signals other than G, R, and B pixels). This indicates any signals not meeting the G, R or B level will be reduced to zero and not applied to the filter.

13: As for Claim 25, Kudo teaches providing a digital image (Figure 3, Element 6), the digital image comprising a plurality of channels (Figure 7 shows R, G and B separated for further processing) with each of the channels comprising a set of pixel data signals, and applying a filter to each of the sets of pixel data signals (34 and 31), and applying a different filter to each of the sets of pixel data signals (column 7, Lines 57+). As shown in Figure 7, Kudo et al' 961 teaches applying a median filter (34) for the set of green pixels, an average-interpolation filter (31) for the set of red pixels, and an average-interpolation filter (31) for the set of blue pixels. These are interpreted as different filters to each of the sets of pixel data signals. Furthermore, as depicted in Figure 11 and discussed on Columns 7, Lines 36-56, Column 8, Lines 6-28 and Column 9, Lines 4-16, after the pixels are interpolated by interpolator filter (47), the data is filtered by a bandwidth correction circuit (23) and a color balance circuit (8). Furthermore, the examiner has viewed the claim broadly so that the claimed filtering includes the color balance filtering (8). Furthermore, as discussed on Column 9, Lines 4-16 the color balance circuit adjusts the three colors differently in order to obtain an optimum color reproduction. This total filtering process by the camera of Kudo is viewed by the examiner as applying a filter to each of the sets of pixel data wherein each of the filters is adjusted and applied differently and independently to

each of the sets of pixel data signals. However, Kudo does not teach the use of a filter that is selected and is different for the sets of pixel data based on at least exposure duration and one scene statistic for the digital image.

Nagata et al teaches on Column 5, Lines 36-55 and depicts in Figure 1 that it is advantageous when designing an electronic imaging system to provide a filter that can adjust the color density and exposure time independently for the different colors. Nagata et al teaches that this filtering method is advantageous because it eliminates the difference between the spectral sensitivity of the camera and a CRT monitor and therefore improves color accuracy of a displayed image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the camera of Kudo with a color density filter as taught by Nagata et al in order to eliminates the difference between the spectral sensitivity of the camera and a CRT monitor and therefore improves color accuracy of a displayed image.

14: In regards to Claim 26, Kudo et al teaches replacing the individual pixel within the set of pixel data with a median pixel data signal derived from a median value of adjacent pixel data signals within a set of radius around the individual pixel data signal (column 7, Lines 65-column 8, Line 23; also Figure 7 show the replaced pixel is output from the filters). This process is viewed as a median filtering process.

15: As for Claim 27, Kudo et al teaches that the set of radius is different from the different filters (element 34 uses the two midmost values such as directly above, below, on the right of, and on the left of the central pixel [Column 7, Lines 58-64] and element 31 uses all of the signal values [column 8, Lines 10-15].

16: In regards to Claim 29, Kudo teaches providing a digital image (Figure 3, Element 6), the digital image comprising a plurality of channels (Figure 7 shows R, G and B separated for further processing) with each of the channels comprising a set of pixel data signals, and applying a filter to each of the sets of pixel data signals (34 and 31), and applying a different filter to each of the sets of pixel data signals (column 7, Lines 57+). As shown in Figure 7, Kudo et al' 961 teaches applying a median filter (34) for the set of green pixels, an average-interpolation filter (31) for the set of red pixels, and an average-interpolation filter (31) for the set of blue pixels. These are interpreted as different filters to each of the sets of pixel data signals. Furthermore, as depicted in Figure 11 and discussed on Columns 7, Lines 36-56, Column 8, Lines 6-28 and Column 9, Lines 4-16, after the pixels are interpolated by interpolator filter (47), the data is filtered by a bandwidth correction circuit (23) and a color balance circuit (8). Furthermore, the examiner has viewed the claim broadly so that the claimed filtering includes the color balance filtering (8). Furthermore, as discussed on Column 9, Lines 4-16 the color balance circuit adjusts the three colors differently in order to obtain an optimum color reproduction. This total filtering process by the camera of Kudo is viewed by the examiner as applying a filter to each of the sets of pixel data wherein each of the filters is adjusted and applied differently and independently to each of the sets of pixel data signals. However, Kudo et al does not teach transforming red, green, and blue channels to an achromatic and two chrominance channels.

Official notice is taken that it was notoriously well known in the art at the time the invention was made to change RGB primary color signals to R-G, B0G, and Y channels (also known as Cr,Cb,Y). In order to provide a camera with the ability to interface with devices (monitory) which have (Cr,Cb,Y) inputs. Therefore, increasing the functionality of the camera.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the camera of Kudo with circuitry which can convert primary colors (RGB) into a (Cr,Cb,Y) In order to provide a camera with the ability to interface with devices (monitory) which have (Cr,Cb,Y) inputs. Therefore, increasing the functionality of the camera. However, Kudo does not teach the use of a filter that is selected and is different for the sets of pixel data based on at least exposure duration and one scene statistic for the digital image.

Nagata et al teaches on Column 5, Lines 36-55 and depicts in Figure 1 that it is advantageous when designing an electronic imaging system to provide a filter that can adjust the color density and exposure time independently for the different colors. Nagata et al teaches that this filtering method is advantageous because it eliminates the difference between the spectral sensitivity of the camera and a CRT monitor and therefore improves color accuracy of a displayed image.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the camera of Kudo with a color density filter as taught by Nagata et al in order to eliminates the difference between the spectral sensitivity of the camera and a CRT monitor and therefore improves color accuracy of a displayed image.

17: As for Claim 30, Kudo et al teaches replacing the individual pixel within the set of pixel data with a median pixel data signal derived from a median value of adjacent pixel data signals within a set of radius around the individual pixel data signal (column 7, Lines 65-column 8, Line 23; also Figure 7 show the replaced pixel is output from the filters). This process is viewed as a median filtering process.

18: In regards to Claim 31, Kudo et al teaches that the set of radius is different from the different filters (element 34 uses the two midmost values such as directly above, below, on the right of, and on the left of the central pixel [Column 7, Liens 58-64] and element 31 uses all of the signal values [column 8, Lines 10-15].

19: As for Claim 44, Kudo teaches providing a digital image (Figure 3, Element 6), the digital image comprising a plurality of channels (Figure 7 shows R, G and B separated for further processing) with each of the channels comprising a set of pixel data signals, and applying a different filter to each of the sets of pixel data signals (34 and 31).

20: In regards to Claim 45, Kudo teaches providing a digital image (Figure 3, Element 6), the digital image comprising a plurality of channels (Figure 7 shows R, G and B separated for further processing) with each of the channels comprising a set of pixel data signals, and applying a different filter to each of the sets of pixel data signals (34 and 31).

21: Claims 4, 5, 13, 14, 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,686,961 Kudo et al in view of USPN 5,057,913 Nagata et al in view of the applicants conceded prior art.

22: As for Claim 4 and 5, Kudo in view of Nagata et al does not specifically disclose adjusting the set radius of pixel data signals in the filter for each of the channels of the digital image based on at least one factor which is a duration of the exposure for capturing the digital image.

However, the applicants conceded prior art teaches at an exposure of 15 seconds the radius is a set radius. Therefore, the applicants conceded prior art teaches the radius is set

according to exposure since the longer the exposure the more noise likely increases with defective pixels. This would require more correction.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the set radius of pixel data signals in the filter as taught by the applicants conceded prior art for each of the channels of the digital image based on at least a duration of exposure for capturing the digital image

23: In regards to Claim 13 and 14, Kudo in view of Nagata et al does not specifically disclose adjusting the set radius of pixel data signals in the filter for each of the channels of the digital image based on at least one factor which is a duration of the exposure for capturing the digital image.

However, the applicants conceded prior art teaches at an exposure of 15 seconds the radius is a set radius. Therefore, the applicants conceded prior art teaches the radius is set according to exposure since the longer the exposure the more noise likely increases with defective pixels. This would require more correction.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the set radius of pixel data signals in the filter as taught by the applicants conceded prior art for each of the channels of the digital image based on at least a duration of exposure for capturing the digital image

24: In regards to Claim 28, Kudo in view of Nagata et al does not specifically disclose adjusting the set radius of pixel data signals in the filter for each of the channels of the digital image based on at least one factor which is a duration of the exposure for capturing the digital image.

However, the applicants conceded prior art teaches at an exposure of 15 seconds the radius is a set radius. Therefore, the applicants conceded prior art teaches the radius is set according to exposure since the longer the exposure the more noise likely increases with defective pixels. This would require more correction.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the set radius of pixel data signals in the filter as taught by the applicants conceded prior art for each of the channels of the digital image based on at least a duration of exposure for capturing the digital image

25: As for Claim 32, Kudo in view of Nagata et al does not specifically disclose adjusting the set radius of pixel data signals in the filter for each of the channels of the digital image based on at least one factor which is a duration of the exposure for capturing the digital image.

However, the applicants conceded prior art teaches at an exposure of 15 seconds the radius is a set radius. Therefore, the applicants conceded prior art teaches the radius is set according to exposure since the longer the exposure the more noise likely increases with defective pixels. This would require more correction.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the set radius of pixel data signals in the filter as taught by the applicants conceded prior art for each of the channels of the digital image based on at least a duration of exposure for capturing the digital image

26: Claims 7 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,686,961 Kudo et al in view of USPN 5,057,913 Nagata et al in view of USPN 5,805,213 Spaulding et al.

27: As for Claim 7, Kudo in view of Nagata et al teaches the above invention. However, Kudo in view of Nagata et al fails to specifically disclose using a color-space transformation to the sets of pixel signals before the step of applying a filter.

However, Spaulding et al teaches on Column 8, Lines 25-67 that it is advantageous to allow a color-space transformation to be performed in a camera when a digital image processor is located outside of the camera. Furthermore, Spaulding et al teaches the use of CIELAB for the purpose of correcting the multi channel signals of the camera system to produce the desired output signals (Column 8, Lines 53+; and Column 7, Lines 63+). Therefore, Spaulding et al teaches performing the color-space transformation process to sets of pixel data before performing various image processing techniques (each of the different adjusted filters) in order to improve image quality.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the color-space transformation process of Spaulding before the image processing (13) of Kudo in view of Nagata et al in order to improve image quality.

28: As for Claim 46, Kudo in view of Nagata et al teaches the above invention. However, Kudo in view of Nagata et al fails to specifically disclose using a color-space transformation to the sets of pixel signals before the step of applying a filter.

However, Spaulding et al teaches on Column 8, Lines 25-67 that it is advantageous to allow a color-space transformation to be performed in a camera when a digital image processor is located outside of the camera. Furthermore, Spaulding et al teaches the use of CIELAB for the purpose of correcting the multi channel signals of the camera system to produce the desired output signals (Column 8, Lines 53+; and Column 7, Lines 63+). Therefore, Spaulding et al

teaches performing the color-space transformation process before performing various image processing techniques in order to improve image quality.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the color-space transformation process of Spaulding before the image processing (13) of Kudo in view of Nagata et al in order to improve image quality.

Allowable Subject Matter

29: Claims 17, 19-24, 33 and 35-39 are allowed.

30: Claims 40-43, 47 and 48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art does not teach a method for reducing noise in a digital camera by providing a grayscale mask for each of the sets of pixels, wherein each of the grayscale masks has one of a range of threshold values for an exposure condition that indicates when each of the pixel data signals should be filtered and applying a different median filter to the sets of pixels. And selecting a different median filter for each set of pixels based on at least exposure duration and scene statistics.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Hannett whose telephone number is 571-272-7309. The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett
Examiner
Art Unit 2622

JMH
October 12, 2006

VIVEK SRIVASTAVA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600